The National Picture: General Overview

Cancer is the second leading cause of death in the United States today. In the year 2000, approximately 1,220,100 persons in the United States were expected to be diagnosed with cancer; 552,200 persons were expected to die from cancer.¹ This number does not include the number of skin cancer cases, which alone are expected to exceed 1 million per year. It is also estimated that one-half of all the new cases of cancer will occur in persons over the age of 65.

Of those who get cancer, it is expected that 4 out of every 10 patients will still be living five years after their diagnosis. After adjusting for normal life expectancy (such as dying of heart disease, injuries, and diseases associated with old age), a five year survival rate of 60 percent is seen for all cancers.¹ This means that a person who has been diagnosed with cancer has a sixty percent chance of being alive in five years. Five-year survival rates are commonly used to monitor progress in the early detection and treatment of cancer in persons who are living five years after diagnosis, whether they are in remission, disease free, or still undergoing treatment.

In addition to the human toll of cancer, the financial cost of cancer is substantial.² The overall annual costs for cancer are estimated at $107 billion, with $37 billion for direct medical costs (the total for all health expenditures), $11 billion for the costs of illness (the cost of low productivity due to illness), and $59 billion for costs of death (the cost of lost productivity due to death). Treatment for lung, breast, and prostate cancers alone accounts for more than half of the direct medical costs.
The National Picture: Cancer Types

Cancers of the female breast, prostate, lung and bronchus, and colon and rectum are the most common cancers for all racial and ethnic populations in the United States (see Figure 1). Lung cancer is the leading cause of cancer death for both men and women in the United States, killing more people than breast, prostate, colon, and pancreatic cancers combined. Eighty-five percent of patients who are diagnosed with lung cancer will die from it.¹
Cancer death rates vary by gender, race and ethnicity. Among men, lung cancer death rates have declined since 1990, however it still remains the most common cause of cancer death among both males and females in the United States. Estimates indicate that 164,000 (74,600 females and 89,500 males) new cases of lung cancer would be diagnosed in 2000; 156,900 persons (67,600 females and 89,300 males) would die from lung cancer in 2000, accounting for 28 percent of all cancer deaths.1

Breast cancer is the most common cancer among women in the United States. In 2000, an estimated 184,200 new cases were expected to be diagnosed. About 40,800 U.S. women were estimated to die from breast cancer in 2000, accounting for about 15.2 percent of cancer deaths among women.1 The stage at which the tumor is found greatly influences a person’s chance of survival.

Overall, colorectal cancer is the second leading cause of cancer-related deaths in the United States. An estimated 130,200 cases (66,600 females and 63,600 males) and 56,300 deaths (26,500 females and 27,800 males) from colorectal cancer were expected to occur in 2000. However, when you look at the mortality rates for men and women separately, it is actually the third leading cause of cancer deaths for both sexes, trailing lung and breast cancer for women and lung and prostate cancer for men.1

Other than skin cancer, prostate cancer is the most commonly diagnosed form of cancer in males. It is the second leading of cancer deaths among males in the United States. Prostate cancer was expected to account for an estimated 180,400 cases and 31,900 deaths in 2000. This accounts for 29 percent of all cancer cases and 11 percent of all cancer deaths.1 Prostate cancer is most common in men aged 65 years and older, which makes up approximately 80 percent of all cases of prostate cancer.

**The National Picture: Health Disparities**

Certain populations in the United States are more heavily affected by particular diseases. Many racial and ethnic minorities and other medically underserved groups experience higher than average death rates for certain kinds of cancers. Some of these disparities can be explained by late diagnosis, lifestyle factors, and access to health care. Research has overwhelmingly supported the notion that poverty is a significant risk factor.3 Lack of education, unhealthy lifestyles and behaviors, in addition to fatalistic ideologies about cancer diagnosis all create formidable challenges to the overall goal of closing the gap. In addition, those in poverty are often living in poor conditions, without access to good information, health care, or preventive services.

**The Kentucky Picture: General Overview**

The economic burden of cancer and its associated health care costs are certainly being felt in the Commonwealth. According to the United Health Foundation’s state health rankings for 2002, Kentucky ranked 39th in the nation.4 This report presents a snapshot
of the health status of each state. Two challenges were specifically noted for the state of Kentucky. One is the prevalence of smoking. Almost one third of all Kentuckians smoke (30.9%), which is the highest percentage in the nation. The second challenge concerns cancer mortality rates. Kentucky has the second highest cancer death rate in the country, at 234.5 people per 100,000 population. Unfortunately, the report also states that the relative health of the state has changed only slightly since 1990.

The most recent available age-adjusted cancer incidence and mortality rates confirm this dismal picture. The American Cancer Society estimated that more than 20,500 men, women and children in Kentucky will learn they have cancer in 1999 and more than 9,500 residents will die from cancer. Indeed, data from the Kentucky Cancer Registry show that 21,410 cases of cancer were diagnosed in 2000. Cancer was the second leading cause of death in Kentucky for that year, with 9,127 deaths recorded by Kentucky Vital Statistics. Cancer accounted for 24 percent of all deaths during this statistical reporting period. Even though heart disease is listed as the leading cause of death in Kentucky, cancer mortality rates are expected to equal or exceed heart disease mortality rates during the next decade.

Figure 2

![Age-Adjusted Cancer Incidence Rates by County in Kentucky](image)

Source: Kentucky Cancer Registry. Available online at: www.kcr.uky.edu.

**The Kentucky Picture: Cancer Types**

According to 2000 data from the Kentucky Cancer Registry, the cancer incidence rate for the state was 525.9 persons per 100,000, while the U.S. rate was 424.7 per 100,000. More Kentuckians had lung cancer in 2000 (3936 people) than any other cancer. During that same time period, 3221 people had breast cancer, 2,648 had colorectal cancer, 2545 had prostate cancer, and 1364 persons had cervical cancer.
Healthy Kentuckians 2010

Healthy People 2010 is an initiative that defines that nation’s health agenda and guides health policy. It includes very specific objectives that are monitored over time. Using these objectives, we can begin to identify ways to improve the health status of Americans. The whole concept of Healthy People 2010 is that the public and private sectors will partner to focus their efforts on specified issues.

Just as the nation has health objectives, Kentucky has also established its own guidelines, Healthy Kentuckians 2010. There are two overarching health goals for our state: to increase the quality and years of ‘healthy’ life and to eliminate health disparities. Our document follows the same format as Healthy People 2010 with objectives to meet the needs of Kentuckians. These objectives fall into 26 focus areas, which are divided into four categories: 1) promote healthy behaviors; 2) promote healthy and safe communities; 3) improve systems for personal and public health; and 4) prevent and reduce disease and disorders. 

Kentucky’s 2010 objectives for Cancer:

- To reduce cancer deaths to a rate of no more than 220.7 per 100,000 people in Kentucky. Strategies: Statewide Cancer Control plan; decrease tobacco use; diet modification; early detection and screening; increase community outreach; maintain partnership of KDPH, KCP, ACS, and University Cancer Centers.

- To maintain lung cancer deaths to a rate of no more than 80.7 per 100,000 people in Kentucky. Strategies: encourage schools, family and community groups to discourage tobacco use among children and teens; target pregnant women and mothers of young children; increase more smoke free areas in the workplace and public places; support and encourage smoking cessation programs.

- To reduce cervical cancer deaths to no more than 3.2 per 100,000 women in Kentucky. Strategies: increase availability and accessibility of cervical screening and diagnostic services for low-income and uninsured women through local health departments; support education efforts to increase screening in women ages 18 years and older; provide education of risk factors, including the dangers of intercourse at an early age, multiple sex partners and sexually transmitted diseases (STD).

- To reduce breast cancer deaths to no more than 22.5 per 100,000 women in Kentucky. Strategies: increase availability and accessibility of breast screening and diagnostic services for uninsured and underinsured women through local health departments; support population-based efforts to increase screening in all women 40 and older, including education and peer counseling, to be carried out by community breast cancer coalitions and other entities; provide professional education opportunities to improve expertise in provision of clinical breast exams, mammography, and treatment; promote participation in clinical trials for
prevention and treatment; provide education to the public on other risk factors such as diet and exercise which may have a relationship to breast cancer.

- To increase to at least 85% the proportion of women ages 40 and older who have ever received a Clinical Breast Exam (CBE) and mammogram, and to at least 85% those ages 50 and older who have received a CBE and mammogram within the preceding one to two years. **Strategies:** increase the availability and accessibility of breast screening and diagnostic services for underinsured and uninsured women through the local health departments; support education efforts to increase screening in women ages 40 and older; promote participation in clinical trials for prevention and treatment; provide education for professionals to increase their adherence to screening guidelines and encourage appropriate referral of patients; provide professional education opportunities in efforts to improve expertise in provision of clinical breast exams, mammography, and treatment.

- To increase to at least 95% the proportion of women ages 18 and older who have ever received a Pap test, and to at least 85% those who received a Pap test within the preceding one to three years. **Strategies:** increase availability and accessibility of cervical screening and diagnostic services for uninsured and underinsured women through local health departments; support education efforts to increase screening in all women 18 years and older; provide professional education opportunities to improve the technique, referral, and standards of care; provide professional education opportunities to increase health care providers’ adherence to accepted screening guidelines.

- To reduce colorectal cancer deaths to no more than 23.5 per 100,000 people in Kentucky. **Strategies:** increase community education programs for early detection in people over age 50 with Sigmoidoscopy; promote referrals by health care providers for screening exams; education and outreach regarding dietary modifications to reduce cancer risk.

- To increase to at least 35% the proportion of people ages 50 and older who have received fecal occult blood testing within the preceding one to two years, and to at least 40% those who have ever received proctosigmoidoscopy. **Strategies:** promote referrals by health care providers for screening exams; promote clinical trial participation and/or treatment; provide public education and outreach regarding the importance of screening exams.

- **(In Development)** To increase the number of men 50 years and older, particularly African-Americans and other high-risk individuals, who receive counseling from health care providers about prostate cancer screening.

- **(In Development)** To increase the percentage of persons 50 years and older who have received oral, skin, and digital rectal exams in the preceding year.
• (In Development) To increase the percentage of Kentucky physicians who have current knowledge about genetics and disease and who appropriately counsel or refer their high-risk patients.

• (In Development) To increase the number of cancer survivors who are living 5 years or longer after diagnosis.

Kentucky’s Plan of Action

Our state was one of six chosen by the Centers for Disease Control and Prevention (CDC) to develop our own comprehensive cancer control plan. In efforts to accomplish this, the Kentucky Department for Public Health (KDPH), the Kentucky Cancer Program (KCP), and the American Cancer Society formed a partnership to reduce the cancer burden in Kentucky. KDPH was already partnering with KCP on several CDC funded cancer initiatives, including efforts to address breast and cervical cancer, tobacco control, and cardiovascular disease. Therefore a precedent had already been established for developing a more comprehensive plan for the Commonwealth. To carry out this plan, the local health departments (LHD), 10 American Cancer Society (ACS) regional offices, and 13 KCP offices needed to coordinate their efforts. Each was designated specific as well as collaborative responsibilities for the state’s cancer control activities.

Presently, there are a large number of state and local players who are actively working to reduce cancer incidence and mortality in Kentucky. The Kentucky Department for Public Health established the Kentucky Tobacco Use Prevention and Cessation Program and the Kentucky Women’s Cancer Screening Program to support smoking cessation and breast and cervical cancer screening and follow-up through the local health departments. These programs also help facilitate some of the local cancer coalitions, provide continuing education for health care providers, and contribute to state-wide media campaigns.

The Kentucky Cancer Program is an invaluable resource for communities. In connection with the James Brown Cancer Center at the University of Louisville and the Markey Cancer Center at the University of Kentucky, KCP has 13 regional offices across the state, each with a cancer control specialist who works with partners to address local cancer problems. KCP oversees a multitude of programs that serve the general public, cancer patients, and health professionals. They also assist local cancer coalitions and coordinate KAAAC (Kentucky African-Americans Against Cancer). Other partners affiliated with the University of Kentucky Markey Cancer Center Cancer Control Program include the Kentucky Cancer Registry, the Mid-South Cancer Information Service, the Appalachia Cancer Network, and the Prevention Research Center.

The American Cancer Society has a three prong mission: fundraising, research, and service. In Kentucky, the American Cancer Society has ten regional offices. Each office offers different programs for their region, including Reach for Recovery and Tell a Friend. Most of their programs are for cancer patients or family members. They also organize the Relay for Life every year to raise money for local and national research projects.
In addition to the services and programs provided by the above mentioned partners, there are many local independent programs that support cancer prevention, such as Sister to Sister and Louisville-Jefferson County Partnership. Various other partners have also undertaken a number of special initiatives. In particular, the Cooperative Extension Service designed and implemented a train-the-trainer early detection program. Finally, it is important to mention the role that foundations play in the fight against cancer. The Susan B. Komen Foundation, for one, is a major player in Kentucky. Every year they organize the Race for the Cure, and they give grant money to local programs that are working to reduce breast cancer mortality rates in Kentucky. Another foundation that supports breast cancer awareness is the Avon Foundation. To further clarify the relationship between all of these state and local partners, see flowchart, “Kentucky Cancer Infrastructure,” on the accompanying page.

Summary and Conclusions

Since Kentucky ranks 39th in the nation for disease burden, the Cooperative Extension Service would be remiss if it did not join forces with other key players in the state to improve the health of Kentuckians. High rates of smoking and cancer related deaths are largely responsible for this bleak picture. If we are to make a difference, then we must address these issues and make cancer prevention education and programming a top priority. We must partner and collaborate with persons who are already doing cancer related programming. Cancer mortality rates in this state can be reduced by improving access to health services, providing health prevention education, and addressing health beliefs and lifestyle choices. The Cooperative Extension Program at Kentucky State University and the Cooperative Extension System at the University of Kentucky have made a commitment to address cancer awareness and prevention in the Commonwealth. We are ready to work with our partners and start outlining a plan of action for tackling this chronic disease.

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5 Kentucky Cancer Registry. Available online at: www.kcr.uky.edu.